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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,238	09/29/2003	John G. Konopka	03-1-548	1895

7590 06/07/2005

Ms. Sandi Basti
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Danvers, MA 01923

EXAMINER

STERRETT, JEFFREY L

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,238

Applicant(s)

KONOPKA, JOHN G.

Examiner

Jeffrey L. Sterrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 11, 12, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Chang et al (US 5,781,418).

Chang et al discloses a circuit comprising a driven half-bridge inverter (A) having an upper transistor (Q1), a lower transistor (Q2), and a driver circuit (216); a resonant output circuit (CL1-CL4, Cr, and Lr); and a control circuit (C) wherein the control circuit monitors a signal (502) in the resonant output circuit and when the signal reaches a predetermined level (zero crossing 508) renders the upper transistor conductive and the lower transistor nonconductive for a predetermined first period and upon completion of the first period renders the lower transistor conductive and the upper transistor nonconductive for a second period that ends when the signal once again reaches the predetermined level (see figure 9).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8, 9, 15, 16, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al.

Chang et al discloses a circuit as explained above and as recited by claims 8, 9, 15, 16, 18, and 19 except for utilizing a startup resistor in the resonant output circuit and utilizing the resonant capacitor voltage as the signal. Official notice is taken that startup resistors were old and known expedients in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the circuit of Chang et al by utilizing a startup resistor in order to get the circuit initially started in a manner that was old and known in the art at the time of the invention. Additionally it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the circuit of Chang et al by utilizing either the resonant capacitor voltage or the output resonant circuit current as the signal since the output resonant circuit current and the resonant capacitor voltage are related by the simple formula of $V=IR$.

5. Claims 10, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al.

Chang et al discloses a circuit as explained above and as recited by claims 10, 17, and 20 except for utilizing a specific circuit arrangement as the phase detector circuit. Official notice is taken that many different phase detector circuit arrangements were old and known expedients to those of ordinary skill in the art at the time of the invention and that the one specifically recited was but one of them. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the circuit of Chang et al by utilizing a different phase detector circuit, such as the one specifically recited, as the phase detector of Chang et al since the selection of any one

of the old and known phase detector circuits over any of the other old and known phase detector circuits was simply a matter of which phase detector circuit had the desired performance characteristics.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al.

Chang et al discloses a circuit as explained above and as recited by claim 13 except for utilizing an adjustable timing resistance. Official notice is taken that making a fixed resistance an adjustable resistance was an old and known expedient to those of ordinary skill in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the circuit of Chang et al by utilizing an adjustable resistance as the fixed timing resistance of Chang et al since it has been a common practice in the art to allow user selection of operational parameters where possible.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chang et al (US 6,016,257) is cited to show another patent granted to Chang et al.

Fellows et al (US 4,952,849) is cited to show another circuit old and known in the art at the time of the invention.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Sterrett whose telephone number is (571)

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272-2085. The examiner can normally be reached on Monday-Thursday & 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571) 272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey L. Sterrett
Primary Examiner
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A handwritten signature in black ink, appearing to read "Jeff Sterrett", is written below the printed name and title.